

Waste Panel Meeting #3

1.5.2020

Attendees

Chair (present):

- Martin Brand, Deputy Commissioner, New York State Department of Environmental Conservation

Members present:

- George Bevington, Senior Project Manager, Barton & Loguidice
- Michael Cahill, Partner, Germano & Cahill, P.C.
- John W. Casella, Chairman, CEO, and Secretary, Casella Waste Systems
- Resa Dimino, Senior Consultant, Resource Recycling Systems
- Dan Egan, Executive Director, Feeding New York State
- Jane Atkinson Gajwani, Director, Energy and Resource Recovery Programs, NYC Department of Environmental Protection
- Paul Gilman, Senior Vice President and Chief Sustainability Officer, Covanta
- Dereth Glance, Executive Director, Onondaga County Resource Recovery Agency
- Eric Goldstein, Sr. Attorney and New York City Environment Director, Natural Resources Defense Council
- Allen Hershkowitz, Founding Director and Chairman of the Board, Sport & Sustainability International
- Bernadette Kelly, International Representative & Recording Secretary Teamsters Local 210
- Tok Michelle Oyewole, PhD., Policy and Comms Organizer, NYC Environmental Justice Alliance
- Lauren Toretta, President, CH4 Biogas
- Brigitte Vicenty, Founder, Inner City Green Team

Members not present:

- Steve Changaris, Vice President, Northeast Region, National Waste and Recycling Association

Key staff present:

- Sally Rowland, New York State Department of Environmental Conservation

Welcome

- Chair Martin Brand welcomes panelists and attendees to the meeting. Notes that while the session is open to the public to listen in, it is not a public meeting during which we can respond to input. Questions and comments can be sent to the panel through the chat function to be captured and folded into panel's work.
- Agenda will focus on the following:
 - George Bevington's presentation on anaerobic digestion
 - Presentations from subgroups
 - Group discussions on topics of interest

Presentation from George Bevington on Anaerobic Digestion

- Sally Rowland introduces George Bevington
- Presentation will be available online, discussion follows below
- John Casella: When you look at 200 digesters, do you have a sense of feedstocks and what is feeding 6000 digesters in Germany? Where is the feedstock coming from?
 - George Bevington:
 - There has not been a comprehensive analysis. I do not know the specific answer.
 - Generally speaking, in this field, technology starts in Europe and then moves here. Some of the 6000 digesters are very small. The culture in Europe is that organics are treated in a way to limit organic waste.
- Chair Martin Brand: What are the obstacles to anaerobic digestion or adding feedstock to waste water treatment plants, is it mostly plumbing?
 - George Bevington
 - It's mostly a matter of plumbing.
 - Engineering also needs to be done. With newer technology, better mixing, more even feeding, we can feed these digesters better than we thought when they were built decades ago. Generally, now digesters can handle more than the industry thought previously.
 - Secondly, a lot of this waste is soluble. You're going to get that energy quickly. The more soluble (Gatorade, dairy waste) can be loaded more. We have some digesters in NYS, can be loaded at 3X, increasing capacity without building a lot of new tanks.
- Steve Changaris: Back to Germany question- intuitively should we be thinking about small or regional scale in terms of forwarding feedstock to digesters?
 - George Bevington
 - In some cases, regional digesters that scale to cover multiple communities could be better/more efficient.
 - Regulating 6000 digesters (as in Germany) in NYS would be challenging and time intensive.

- Mike Cahill: If we mix food waste feedstock in, do you recommend sewage and food waste, or standalone food waste facility that takes in waste collected off the street? If so, how do you handle nonorganic mixings that come out of the kitchen can?
 - George Bevington
 - Multistep process. A “goo” (organic matter that wastewater people want). That goo is truck-able.
 - Wastewater plants do not want to de-package spoiled meat or open up soda bottles etc.
 - Co-digestion is nice because sludges that come down and end up in a co-digester is balanced nutrients. Have everything you need for microorganisms to flourish.
 - If you have a beer stock or something that is one dimensional, you may have to add other nutrients.
 - With food waste, microorganisms get balanced diet needed to flourish.
- John Casella: Need high quality high quantity materials. De-packaging will be successful because you have a chance to direct what is needed to the digester. Do you have any sense about this? Our experience with anaerobic digestion has been challenging but high quantity high quality material is where there is opportunity. However, when you get down to organics coming off of waste stream, it’s more difficult due to contamination.
 - George: I helped implement curbside recycling when that law came out in the 1990’s. We have to look at our recycling bins to know there’s always 10% mistakes placed in wrong type of recycling bin.
 - If there’s 10% of non-organics within an organics batch, it affects the digester.
 - Need multiple screens because digesters are enclosed tanks that are difficult to clean. More food and less debris creates best results.
 - John Casella: Agree based on experience. Noting now reeducating customer base on recycling after change with China. Working on both cultural change and education.
- Eric Goldstein: Have you seen any data on reduction in methane from anerobic digestion vs. food waste?
 - Sally Rowland: Not generating methane via composting. It really becomes how much are you capturing in the digester specifically. Leak management plays a role too.
 - Martin? Digester is an aerobic process.
 - Eric Goldstein: If you’re strictly looking at emissions, the preference would be compost, then anaerobic digestion, then landfills at the low end.
 - Sally Rowland: If you have an AD that’s not leaking, you’ll get the same bang for buck for compost or AD in terms of emissions reductions.
 - Eric Goldstein and Sally will connect offline.

Subgroup Presentations

Molly Trembly introduces five subgroups including the following:

- Water Resource Recovery
- Landfill and Organics Diversion

- Materials Management
- Local Scale Diversion and Climate Justice
- Metrics and Calculations

Each group then presented.

- **Jane Gajwani: Water Resource Recovery Subgroup**
 - Meeting progress: Met three times as a group. We've gotten through half of initiatives outlined for wastewater. Discussed policies to transform wastewater into valuable resources and significantly reduce GHG emissions.
 - Members: Jane Gajwani, George Bevington, Steve Changaris; with support from Kathleen O'Connor of NYSERDA; and Molly Trembly, Sally Rowland, and Don Tuxill, and Michael O'Neil of DEC
 - Goals: Generally our goal is to try to rethink how we conceptualize waste water, and the circular economy.
 - Policies and recommendations
 - Mitigate fugitive emissions
 - Include review of biogas handling systems to DEC routine inspections
 - Encourage conversion of home septic systems in densely populated areas to sewer systems where feasible
 - Fund State-of-Good-Repair efforts to cease fugitive emissions
 - Extract renewable energy from wastewater
 - Feasibility study (financial) - possibly by DEC or by municipalities
 - Consider regional hub-and-spoke facilities for smaller generators (financial)
 - Funding to upgrade existing anaerobic digestion at wastewater treatment plants (financial)
 - Expand opportunities to non-AD solutions that harness more of the calorific content of sludge
 - Recognize the climate benefits of beneficially using biosolids
 - Still being developed, but group recognizes the importance of having demand for biosolids products
 - Provide an outlet for recycling organics and other high strength waste
 - Still being developed, but group recognizes the importance of pre-processing material and that some investment may be needed to unlock excess capacity in existing infrastructure
 - Next steps:
 - Meeting again tomorrow and more to report out next week.
 - Goals:
- **Lauren Toretta- Landfills and Organics Diversion Subgroup**
 - Leads: Lauren Toretta and John Casella
 - Meeting progress: We have met several times
 - Members: Lauren Toretta, John Casella, Steve Changaris, Michael Cahill, Martin Brand, Dereth Glance, and Eric Goldstein; with support from Molly Trembly, Sally Rowland, and Richard Clarkson of DEC

- Goals: To identify and recommend ways in which organics diversion and landfill management can reduce carbon emissions within the State of NY. The Landfill and Organics Diversion Subgroup's goal is to share recommendations that reduce emissions associated with the remaining wastes after waste reduction techniques have been applied and all food waste that could go to higher use such as food banks and then to animal feed have been applied.
- Recommendations/Policies:
 - Align and expand incentives for organic waste management and energy recovery from waste. Support the development of the infrastructure and investment to manage organic wastes in environmental and economically sustainable way.
 - Include Biogas in the Definition of Renewable Energy within the CLCPA (The operative definition of Renewable Energy Systems as adopted in the CLCPA is in new Public Service Law 66-p. This would require an amendment of the statute.
 - Level setting creates opportunities for fossil fuels offset, emissions reductions
 - Align and expand incentives for organic waste management and related energy recovery.
 - Establish financial incentives that are needed to build and improve infrastructure to support the management of organics and its diversion for higher purpose
 - Take a closer look at what each technology needs (LF, WTE, Biogas) in crafting incentives.
 - Increase regulatory support and standards to enable the infrastructure and best in class technologies to flourish, this protects and encourages investment
 - Improve organic diversion, collection and overall residuals management to reduce emissions
 - Diversion: identify and quantify accessible organic waste streams, match with technology, provide incentives.
 - Farm, food production: primary tech compost or AD/secondary tech landfill,
 - Commercial, residential yard waste: primary tech compost, secondary tech landfill
 - Retail, restaurant, institutional food waste (large generator) : primary tech:AD, compost. Secondary tech landfill.
 - Residential and small retail generator food waste: primary tech WTE. Secondary tech landfill: longer term AD or other
 - Examine opportunities to handle waste locally or on a distributed basis
 - Engage local planning to level the playing field and establish the need
 - Examine all options and technologies that are best suited for that community/region

- Look for opportunities to reduce “long-hauling” of waste that will add emissions
 - Support the use of energy related byproducts on a distributed basis
- Reduce methane and other emissions from landfills and other waste management facilities.
 - Create the financial incentives for distributed infrastructure and the use of best-in-class technologies to help manage organics better which will reduce emissions on an immediate and on-going basis.
 - With the right financial incentives, technologies can be deployed to build or improve infrastructure to handle a variety of organic wastes.
 - Create incentives for technology and public-private partnership and investment to help minimize the burden to the municipalities acting alone, and allow for specialized technology and operations as/when needed.
- **Resa Dimino: Materials Management Subgroup**
 - Lead: Resa Dimino
 - Members: Resa Dimino, Allen Hershkowitz, Steve Changaris, Dereth Glance; with staff support from Amy Bloomfield and Molly Trembley and Sally Rowland
 - Meeting progress: We’ve met twice
 - Goals: Several. Keep options in mind on bigger context setting items.
- To identify and recommend ways in which organics diversion and landfill management can reduce carbon emissions within the State of NY. The Landfill and Organics Diversion Subgroup’s goal is to share recommendations that reduce emissions associated with the remaining wastes after waste reduction techniques have been applied and all food waste that could go to higher use such as food banks and then to animal feed have been applied.
 - Resilience. Need to think about resiliency of supply chain have exposed soft underbelly of recycling industry.
 - Life cycle assessment use in decision making, particularly GHG lens
 - Is it better to recover materials locally for lower value and use application (less transportation but less impact) or transport further for higher value application (e.g. pay transportation to get glass back into bottle)
 - Tool use. Recognizing municipal governments don’t have resources to develop programs so having fund cost internalization is important
 - Municipal support. Supporting municipal level solid waste systems
- Policies
 - How to implement EPR:
 - Shouldn’t look at EPR as just funding mechanism

- As we develop systems, producer programs need to look at how to analyze impacts, incorporating ways to incentivize GHG reductions
 - Products and packages targeted based on GHG impacts- packaging and printed paper fiber significantly
 - Carpets which have significant GHG footprint
 - Alkaline batteries and electronics- expanding existing recycling programs
 - Expanding large capacity batteries and solar – EPR is useful
 - Refrigerants and other
- Universal recycling policy- in Vermont and Delaware- provided everywhere, could be done in concert with EPR or on its own
- Construction and demolition debris- important target for reuse and recycling incentives and targets- put responsibilities on builder or developer
 - Using CA example that projects of a certain size are required
 - Looking at it from state agency perspective- see state supporting on key resources- e.g. shingles and other; through permitting requirements and others
 - AG and Markets and DOT should be engaged
- Expanding the bottle bill to include beer and wine
 - Could be done in a way to facilitate reuse
- Recycling capacity- expand domestic markets- particularly methane producing items, like cardboard and others
 - Looking at film, plastics, and textiles
 - Use alternative fuel vehicles for trucking materials
- Solid waste management process to internalize GHG cost
 - Tax or surcharge on transfer stations or another broad base tax surcharge on individuals and businesses that generates a dedicated fund to fund recycling and recycling markets
- Allen Hershkowitz- Generally highlights our focus is on GHG reduction implementation. Less focused on cost issues.
 - Chair Martin Brand: Agrees with the general comment for all the groups. Need is to focus on emissions. Key will be to quantify all of these items, and consider up and downstream. Will follow on.
- **Tok Michelle Oyewole - Local Scale Diversion and Climate Justice**
 - Meeting progress: Had a first introductory meeting. We have assembled to develop broad goals of the subgroup, to be honed into recommendations within upcoming meetings. We are in the process of research and outreach to those engaged in the efforts to which our subgroup pertains.
 - Members: Brigitte Vicenty from Inner City Green Team, Eric Goldstein; with staff support from Kathleen O'Connor (NYSERDA) and DEC Staff
 - Our general focus:
 - Group is focused on ensuring continued commitment to sustainable programs that people are operating on the ground, jobs at the local scale, and marginalized communities. Focus on groups such as microhauling, Inner City Green Team, and others.

- be done. Our group is focused on materials and not on organics, so wanting to make sure it's covered elsewhere.
- Lauren Toretta: There is overlap between subgroups. Invites Resa Dimino to join next subgroup meeting if helpful. Maximizing sending waste to where it is most effective is key.
 - Steve Changaris: Question for Chair: Timing- do you have to report to full CAC on the work of this panel? And there will be an overlay in there of a public hearing in the next 6-8 groups? When do you expect work of the subgroup to be done?
 - Martin: Next reporting point is Jan. 19th. The only hard stop is that we have to have recommendations to CAC by Feb-March. Work will continue to be refined as we go forward. Within another 6-10 week timeframe, we'll need recommendations to CAC so they can package it, so arrive at a plan by late 2021 and 2022. The intensity of the panels will likely slow once we give our first recommendations to the CAC.
 - We'll start teeing up direction or recommendations as part of even preparing for Jan. 19th meeting.
 - We do need to hold at least 1 public meeting in which public input can be shared.
 - Responding to input from others, yes, we can schedule our meetings out further.
 - Discussion on other panels to meet with:
 - Steve Changaris: Transportation. There are lot of impacts, trucking, fuels from digesters to fuel the fleet etc.
 - Chair Martin Brand: Invites ideas and recommendations to be sent to Sally Rowland and Molly Trembly.
 - We did have a discussion with Agriculture and Forestry panel, and continuing would be helpful.
 - Power Generation- at least at a subgroup level.
 - Land Use- There are some issues that would make sense to talk with them
 - Perhaps we delegate small groups from this panel to meet with small groups from other panels
 - Dereth Glance: Are you looking to follow the same model of key areas that other panels presented when presenting to the CAC?
 - Chair Martin Brand: Yes, that is what I was referring to. Also, we should aim to be concise on the slides.
 - Dereth Glance: In terms of meeting schedules, the bookending of early in one week and late in the other is a helpful cadence.
 - Chair Martin Brand: We currently have everything on the table and will look to hone in now.
 - Brigitte Vicenty: Resa, we also had a discussion about the bottle bill, and that it was created 10 years ago. What can be done to raise or re-raised that issue to get these manufacturers to at least pay for any type of vending or way they can be responsible for cleaning or getting these bottles redeemed?

- Resa Dimino: There's a number of things we can do to address this. Question for Chair- how much detail should we get into? We are staying at broad policy level approaches. There's a lot of ways to approach the bottle bill and you'd have different impacts depending on what you choose.
 - Martin: It depends on where you are wanting to go. E.g. if reimagine the whole materials management process, could stay closer to 30,000 foot level, but if you have certain items that are granular to get there, then can focus on that.
 - Resa Dimino: To Bridgette's point, the bottle bill, you have the option to modernize the redemption system, to make it more efficient. It has some climate benefits. You have option to go to 10 cents, inclusion of all glass, etc. Each of these choices changes the way that decision is made.
 - Don't want to take us down a rabbit hole right now, but we should return to it to ensure our estimates are appropriate.
 - Martin: Yes, we will have to weigh these types of items. We all bring our own talents and agendas to this so we'll have to bear it in mind.
- Meeting concludes. Next meeting is 1/14/21.